



MONTHLY WEATHER REVIEW,

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(General Weather Service of the United States.)

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

INTRODUCTION.

In preparing this REVIEW the following data, received up to February 20th, have been used, viz: the regular tri-daily weather charts, containing the data of simultaneous observations taken at 136 Signal Service stations and 15 Canadian stations, as telegraphed to this office; 181 monthly journals and 171 monthly means from the former, and 14 monthly means from the latter; reports from 5 Sunset stations; 241 monthly registers from Voluntary Observers; 67 monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; monthly reports from Voluntary Observers in, and the local Weather Services of Iowa and Missouri and of the Central Pacific Railway Co.; reliable newspaper extracts; special reports.

BAROMETRIC PRESSURE.

The isobarometric lines in black on chart No. II show the mean pressure for the month of January, 1881. Compared with chart No. II of the preceding REVIEW it will be seen that the area of mean high barometer has advanced east towards the Atlantic coast, at least within the limits of the United States, while the area of mean low barometer remained central in the North Atlantic. This easterly movement has been more in the form of an extension of the high area of last month towards the east, as the centre of greatest pressure remains in the Mississippi valley, where the mean barometer for the month is slightly below that of the preceding month. The most marked change in the mean monthly pressure occurred on the Pacific coast. The area of mean low barometer, central in the North Pacific last month and including Washington Territory and Oregon in the southeastern quadrant with a pressure of 29.88, has been replaced by a mean pressure of 30.08 at Olympia and 30.14 at Portland and a general increase of pressure at all stations on the coast. Compared with the January of last year it will be observed that the distribution of pressure was strikingly different in the two months. The pressure during January, 1880, was greatest on the Atlantic coast, with an area of low pressure near the centre of the continent, and this was accompanied by the highest mean temperature observed for many years at northern stations, while the reverse obtains during the January of 1881, both as regards pressure and temperature.

Departures From Normal Values for the Month.—The pressure has generally averaged from 0.02 to 0.08 inch above the normal, except in the Gulf and South Atlantic States, where it has averaged from 0.02 to 0.05 inch below the mean for many years. The greatest departures are observed on the Pacific coast, being at Olympia, 0.16 inch above. At San Francisco and San Diego the pressure ranged from 0.02 to 0.04 inch above.

Barometric Ranges.—The barometric range during the month increases with the latitude on the Atlantic coast from 0.45 inch at Key West to 1.42 inch at New York. From New York northward the range decreases to 1.01 at Portland, and 1.04 at Eastport. Following the Mississippi

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